Global board games project: a cross-border entrepreneurship experiential learning initiative

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Global Board Games Project

A cross-border entrepreneurship experiential learning initiative

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1. Entrepreneurial social skills development through Business Simulation

Entrepreneurship training and development in the context of higher education has grown tremendously over the past four decades. What began as offerings of a handful of courses aimed primarily at business planning and small business management has evolved into over 3.000 higher education institutions around the world offering degree programs and concentrations in entrepreneurship on both undergraduate and graduate levels (Morris, Kuratko and Cornwall, 2013). Universities – particularly in the USA, UK and EU – have invested into developing entrepreneurship curricula but also extra-curricular programs and infrastructure aimed at supporting enterprise development.

It is consensus among educators that entrepreneurship can be taught (Kuratko, 2005). Indeed, entrepreneurship education research has become a field in its own right (Fayolle, Gailly and Lassas-Clerc, 2006; Pittaway and Cope, 2007; Penaluna, Penaluna and Jones, 2012; Fayolle, 2013; Fayolle and Gailly, 2015; Pittaway *et al.*, 2015; Nabi *et al.*, 2017). As literature indicates, entrepreneurship education can have an important impact on a variety of outcomes, including entrepreneurial intentions and behaviours. Intentions are a motivation to engage in certain behaviour that is geared towards venture creation (Gibb, 2008, 2011) as well as recognition and exploitation of opportunities (Shane and Venkataraman, 2000). Moreover, research has also identified the impact of entrepreneurship education on more subjective indicators such as attitudes (Boukamcha, 2015), perceived feasibility (Rauch and Hulsink, 2015), and skills and knowledge (Greene and Saridakis, 2008).

Recently, the literature on the best practices in entrepreneurship education has centred on the importance of experiential learning allowing students to create knowledge from their interactions with the environment (Kolb, 1984). The key to effective experiential learning is engaging students individually and socially in a situation that enables them to interact with elements of the entrepreneurial context thus moving them away from text-driven to action-driven learning mode (Morris, Kuratko and Cornwall, 2013). Increasingly, digital technologies have been leveraged to create a learning environment that provides opportunities for experiential learning (Onyema and Daniil, 2017).

This chapter provides findings of a study related to the development and implementation of a collaborative, digitally supported simulation project aimed at enhancing entrepreneurial social skills in an international context.

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1.1. Supply-, demand-, and Competence Models

One important distinction subsists between education about entrepreneurship and education for entrepreneurship. Education about entrepreneurship focuses primarily on raising awareness about entrepreneurship and various aspects of starting and running a business (Rauch and Hulsink, 2015). These programs can be framed within the behaviourist approach which assumes learning is primarily the passive transfer (supply side) of knowledge from the teacher to the students (Bechard and Gregoire, 2005). In terms of impact, supply-side pedagogy is positively related to self-efficacy (Sánchez, 2011) and entrepreneurial intentions (Krueger, Reilly and Carsrud, 2000; Liñán and Chen, 2009).

The second category (demand side), education for entrepreneurship, emphasizes a practice and action-oriented learning approach (Rauch and Hulsink, 2015). Courses in this tradition emphasize skills, capability development, and personal development, through experimentation, aiming at preparing a business plan, funding a company, and developing the business. Therefore, students are constructive agents that accrue meaning and build knowledge as they apply it to solve problems and learn from that process, and not being mere passive receivers of information (Coleman, Perry and Schwen, 1997; Jonassen, Peck and Wilson, 1999). The demand model of entrepreneurship education focuses on pedagogical methods that include an important element of realism such as real-life problems to be solved, thus making the process of acquiring knowledge more contextualized and aligned with how it would be used in real-world circumstances, thus easier to transfer (ibid.; Nabi *et al.*, 2017).

Students make meaning from direct experiences (Mughal and Zafar, 2011). Knowledge is created through the transformation of experience (Kolb, 1984). Students accrue personalized meaning through exploration, discussion, and experimentation such as by adopting realistic entrepreneurial exercises (e.g. board games, computer simulations) (Kuratko, 2005; Breckwoldt, Gruber and Wittmann, 2014), experience-based learning (Fayolle, Gailly and Lassas-Clerc, 2006; McGoldrick and Ziegert, 2011), problem–based learning (Kirkwood, Dwyer and Gray, 2014), collaborative projects (Souitaris, Zerbinati and Al-Laham, 2007), and gain awareness from role models (Pittaway *et al.*, 2011; Chang and Rieple, 2013).

The competency model emphasizes communication, discussion and knowledge production (Nabi *et al.*, 2017), through supporting students to organize the resources at their disposal into capabilities that can be mobilized for action (Bechard and Gregoire, 2005). Such pedagogical methods require students who are starting up businesses to consult external experts typically for legal, accounting, and sales support (Vincett and Farlow, 2008) or deal with real-world problems or opportunities in industry-engaged environments (Gilbert, 2012).

Both demand- and competency-based approaches embed pedagogic practices that support learning through experience (Wurdinger, 2005; McGoldrick and Ziegert, 2011; Mughal and Zafar, 2011). Nabi *et al.* (2017) identified that demand- and competence-based pedagogic approaches affect positively entrepreneurial intention (Fayolle, Gailly and Lassas-Clerc, 2006; Souitaris, Zerbinati and Al-Laham, 2007), or other personal change, such as satisfaction with the course or participation (Pittaway *et al.*, 2011). In addition, both demand- and competence-based models are positively related to entrepreneurial skills development (Gilbert, 2012; Nabi *et al.*, 2017), such as entrepreneurial social skills which are the focus of this book chapter.

In this project, entrepreneurial social skills are the ability to manage social relationships in order to build valuable social networks (Gedajlovic *et al.*, 2013). Therefore, this research studies social skills in the context of networks and not as skills to effectively interact with other as, for example, in the work of Baron and Markman (2003).

In order to enhance entrepreneurial social skills, a project based on designing a board game with a global focus was developed using a combination of methods from these different approaches: demand-competence-based and enhancing online communication through digital technologies.

1.2. Digital technologies and entrepreneurial learning

Digital technologies applied to teaching and learning encompass all the four contributions that social software brings to educational domain, as identified by McLoughlin and Lee (2010): build connectivity and social relationship; facilitate collective discovery and information sharing; support content construction; knowledge and information accumulation and modification. However, in order to achieve meaningful technology integration, learning must be designed to encourage students to learn in a social context and help them to develop an ability to readily create new knowledge, solve new problems and employ creativity and critical thinking" (Sadik, 2008, p. 488).

This means that these technologies have the ability to support content generation by seamlessly capturing different inputs such as suggestions, ideas and opinions from individuals who are focused on the same topic or project, therefore contributing to establishing communities of practices (Cochrane, 2014). Communities of practice allow students with different skills and backgrounds to collaborate in evaluating different courses of action and contribute to a dynamic decision-making process. This detaches the decision making from the individual level and strengthens the multidisciplinary perspective. Furthermore, it establishes the grounds for developing networks among peers that will undoubtedly benefit their future roles and career progression. The project and the methodology used are now presented.

2. Global Board Games Project

2.1. Concept and objectives

The concept of the project arose from the debate among scholars in the field of international entrepreneurship on how to create cross-border experiential exercises and projects that would expose students to the concept of international entrepreneurship and early international market entry. One of the venues for such a debate is the annual California Entrepreneurship Educators conference hosted by the San Diego State University and the *ie-scholar.net*, an online community of 600+ international entrepreneurship scholars and educators from around the world.

One of such ideas gave rise to a semester-long experiential simulation project dubbed *Global Board Game Project* (GBGP). The key drivers of the project were the desire to instil global entrepreneurial mind-sets, engage students in hands-on activities including ideation and development of a tangible minimum viable product (a board game).

The choice of board games as a focal point of the methodology was justified through their return to mainstream entertainment among families, children and young adults, not only at home but also in cafes and social spaces. Global sales of games and puzzles have grown from $9.3 billion in 2013 to $9.6 billion in 2016, according to Euromonitor International, with an expected year-on-year growth of more than 1 percent each year. Furthermore, board games offered a creative canvas for students, through which they can attune their game designs to demonstrate the understanding of cultural contexts. A large number of variables in designing a board game was also an opportunity for communication, discussion and debate among students.

The project had five objectives:

1. Inspire students to use theoretical concepts in practice.
2. Identify a real problem in a real-world environment to be addressed with the development of a product.

3. Foster internationalisation, and encourage students to learn how to market a product in a foreign country.
4. Enable knowledge creation among students to solve problems.
5. Enhance the social skills necessary to manage actor networks.

Representatives of three universities in three countries expressed interest and became active in designing the project's methodology – San Diego State University (USA), Abertay University (UK) and University Jaume I (Spain).

2.2. Methodology

To ensure meeting the objectives while bringing together students and educators from different countries, the following methodology was defined.

In each university, the students were grouped in groups of four to six students each and paired with one partner group from a different country (foreign partner team). This led students to engage in a social network of peers in which to become involved in a discursive process leading to reflection through action learning. Each group was tasked with creating a product (board game) to be sold in California (USA), Scotland (UK) or Spain, according to the location of the partner group to which they had been assigned.

Each participating team on the project, therefore, had a dual role. On one hand, they were entrepreneurs tasked with creating a board game according to a problem/need identified in the foreign market in which it would be marketed and sold. For that, they had to establish multicultural negotiations with a foreign partner team (FPT) and were expected to provide feedback about domestic market characteristics, product viability, price decisions, channels availability and communication to their partners.

On the other hand, each team was to consider marketing a board game created by their FPT according to a problem/need identified in their own country with the information that they had provided. Specifically, each team's responsibility would be to provide support to the other team and help marketing the product (board game) locally in their home market. To facilitate interaction between students within their team, between teams and between students and the instructors, each group created a profile on Ideator.com, an online platform designed specifically for entrepreneur teams. It enabled easy communication as well as served as a repository for all project-related documents. Creating an *Ideator.com* profile prompted students to act as "real" entrepreneurs by creating a home page, logo and verbiage that would be normally expected from a team of individuals seeking to bring product/service to market.

Students were asked to identify a real problem in the assigned international market to be addressed by the board game. For that, each team had to conduct an in-depth assessment of the foreign market using secondary research to evaluate the trends occurring in the macro environment, identify the issues of particular challenge and considered the feasibility of these to the development of their board game by relating the issues to themes/elements of the game.

While doing that they were expected to engage with their FPT in order to validate their understanding of the issues found, as well as the extent that the board game that was being envisaged would contribute to solving the problems, and potentially be accepted by the customers in the foreign market.

Each group was asked to create a prototype of the board game to be sold in the foreign market. This included knowledge about both foreign and local competitors. They had to think about the product idea and to develop a description of the product, which should include its tentative name, and instructions for use. They also had to articulate a brief description of the "problem" it sought to solve and the

"solution" to that problem. The prototype should be physical and instructions to play should also be available. The physical prototype would be sent to the partner group. To facilitate the development of the prototype and to simulate the process of minimum viable product development, the student teams used *Boardgamesmaker.com*, an online customs board and card game manufacturer. Using this platform forced students to not only create a technologically feasible prototype but also take into account issues such as the cost associated with various features and shipping options, volume discounts and the time lag between making an order and the arrival of the product to an international location.

In parallel to this process, each group was expected to elaborate a market entry plan addressing actions to be implemented towards marketing and selling their board game in the foreign market. Aspects such as customer segmentation, pricing, distribution and communication strategies were expected to be given in-depth consideration. Additionally, they had to collect intelligence on foreign competitors in that market. Finally, they had to provide a brief assessment of their competitive positioning, including a note on the information they would like to obtain in-order-to make a better decision about their intended strategy. The market entry plan would be sent to the partner team.

Each team was expected to have the prototype of the game and a lean market entry plan sent to their counterpart. Conversely, each team would receive from their partner team these two outputs. Each team would conduct a product test of their FPT's board game and provide feedback on the product as well as on the market entry plan.

Finally, each group had to assess their FPT and each student individually had to elaborate a personal reflection and reflect on how, through participating in the GBGP, their understanding of international entrepreneurship, product development and foreign market entry had been enhanced through the challenges their group faced and overcame.

2.3. Implementation

The project was implemented during 2017/2018 (September-December) and included the three participating institutions. As Gibb (2011) posited, an important competence for entrepreneurial educators is the capacity to build networks of support, internally and externally, what requires knowledge of other programmes and policies and the opportunities that arise from them.

Overall, 109 students participated in the project: 47 of the International Entrepreneurship course from the Bachelor's Degree (various business majors) at San Diego State University; 24 of the course Creativity, Innovation and Marketing from the degree Marketing of Abertay University; 25 of the course Business Creation and 13 of the course International Marketing from the Bachelor's Degree in Business Administration of Universitat Jaume I. 22 teams were created, 10 in San Diego State University, 6 in Abertay University and 6 Jaume I, these latter teams were formed with students from Business Creation and International Marketing courses.

The teams were randomly coupled warranting that each university had at least a FPT from one of the other two participating countries. The final distribution was five San Diego State University teams coupled with five Abertay University teams, the other five San Diego State University teams coupled with five Universitat Jaume I UJI teams and one Abertay University team coupled with one Universitat Jaume I team.

The successful implementation of this methodology, across three cohorts of students in three nation-states raised several challenges for the delivery team. The specificities of the implementation process adopted are now discussed.

When the learning project involves students from different countries, the challenge for the entrepreneurial educators is not only to find international partners to coordinate the learning activities but to adapt the own programme to them. From April to August 2017, the educators of the three universities made the required adaptations of content, assignments and calendar to coordinate the activities of the participating student teams.

One of the first tasks was organising team formation. This was conducted early in the semester to enable students to immediately begin the team-working project and to capitalise on the buzz generated from introducing students to the module. Students self-selected teams of between four and five members, exchanged contact details, and were tasked with creating their online network platform profiles (specifically using Ideator.com). Teams were encouraged to maintain team-meeting logbooks, the purpose of which was twofold; first, the logbooks facilitated team meeting scheduling, and second, they encouraged productivity during team meetings as attendees were required to reflect on meeting outputs.

Several options to communicate were offered to the student: online network platforms, e-mail, telephone, instant message applications, video chat, etc. Online network platforms were used for generating and sharing the minimum viable product (the first version of the board game). They also used these platforms to share information and documents, such as worksheets. Each group shared their ideas with professors, which allowed team outputs to be monitored and checked in advance for appropriateness.

The size of the modules at the three GBGP partners influenced the number of students per group, and therefore the number of teams formed at each partner institution. In practice, this process was complicated by the unsettled early weeks of the semester. To combat this challenge, the delivery team maintained close oversight of local team compositions, to ensure the capacity to offer corresponding overseas partners was maintained. Students worked in the same groups for both the GBGP outputs and for local assessment (e.g. group presentation). Regular VOIP and email communication between the GBGP delivery team was crucial to this stage.

2.3.1. Milestones

Variation in the academic calendars across partner institutions raised coordination challenges for the implementation of the project. In response to this, an agreed series of inter-institution milestones, overlaid against the demands of local delivery calendars (including local assessment requirements) was generated. The GBGP milestones were again agreed through communication across the delivery team, to ensure student partner teams progressed at similar stages, and could, therefore, cooperate effectively with one another during the project.

The use of global milestones mitigated the impact of variation in the academic focus of the modules being delivered (e.g. entrepreneurship, marketing) as the milestones agreed made allowances for local academic focus, and were designed to stimulate student cross-cultural interaction (see Table 1). Of the agreed milestones, the following could be considered highly critical, therefore, requiring prioritisation by the delivery team:

- Allocation and establishing of contact with foreign partner team
- Ordering board games (taking into account production and delivery times)
- Offering feedback to partner teams on the received board game

To contribute to meeting the project's objectives, eight worksheets that stimulated incremental understanding among students were developed (see Table 1).

The aim of the first worksheet was to develop a portrayal of the foreign market. The students had to develop foreign market indicators to be used to assess the partner country's market attractiveness. Then they had to determine the source of information for each indicator and collect data of the most recent year available. This involved establishing weights that reflected the importance of each indicator in predicting foreign market potential. Using the data collected, they had to determine the relative attractiveness of their market (UK, USA or Spain). Finally, using the market assessment tool they developed, they had to comment on the findings in light of other information they may be able to source (this could include informal personal insights, special circumstances, etc.).

The aim of the second worksheet was to develop a preliminary idea about the positioning of the board game product in the target market. This included knowledge about both foreign competitors. They had to think about the product idea and to develop a description of the product, which should include its tentative name, and instructions for use. They also had to articulate a brief description of the "problem" it sought to solve and the "solution" to that problem. Additionally, they had to describe the target market for their product in the country they were assigned and collect intelligence on both foreign and local competitors in that market. Finally, they had to provide a brief assessment of their competitive positioning, including a note on the information they would like to obtain in-order-to make a better decision about their intended strategy.

The objective of the third worksheet was to develop the business model canvas for board game product they developed. The students were advised to be prepared to iterate their thinking about the business model as they engaged with their FPT as well as in gathering primary data on their customers.

The fourth worksheet task consisted of developing a lean market entry plan for their global board game product into the assigned foreign market. This action plan had to be informed by the work presented in previous worksheets and supplemented by independent research. This plan had to be sent to their FPT for feedback.

The aim of the fifth, sixth and seventh worksheets was to provide valuable feedback to FPTs. Respectively, based on the findings related to testing the FPT's product, the consideration of their lean foreign market action plan, and the efforts of the FPT during the process which involved each team providing information to its partner.

Finally, each student provided a personal reflection on their experiences developing an idea, designing a product, and developing a marketing plan in this module (by filling in worksheet eight). They could focus on one particular theoretical aspect of the course (e.g. an aspect of marketing, sales, international cultural business issues, distribution issues etc.) and reflect on how through participating in the process their understanding had been enhanced through the challenges their group faced and overcame.

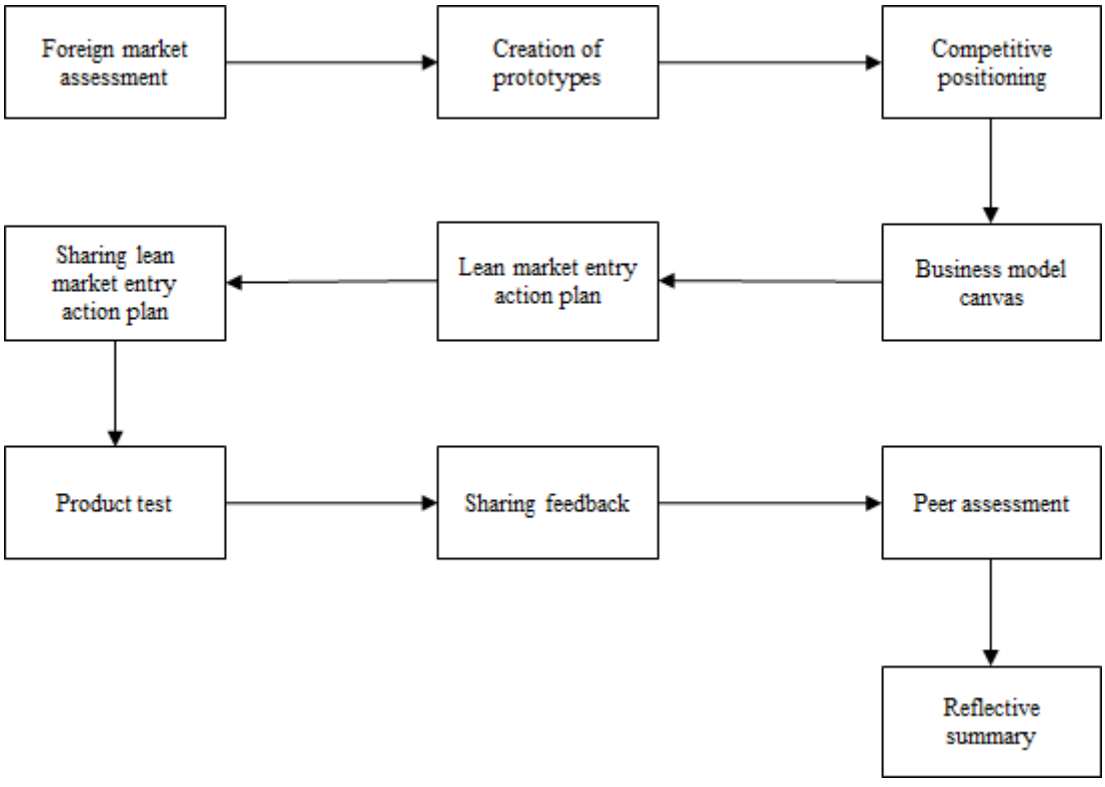
Table 1. Milestones of the Global Board Game Project

Milestone Day/Month	Topic / Brief Description	Students' outputs
18/09	Creation of teams in the USA, UK and Spain, and pairing with FPT	Pairing with FPT
18/09	Creation of a team's profile and project/board game brief using Ideator.com platform	Ideator.com profile per group and invitation of partner team to join in.
25/09	Pre-qualification of the board game idea by the lecturers - Go or No Go decision	
06/10	Foreign market assessment	Desk research exercise into the board games market, globally, in USA, UK and Spain..

		Worksheet I
13/10	Ideation and creation of prototypes/mock-ups of the board game	Elaboration of physical version of the prototype and/or submit order for production to be sent to FPT. Elaboration of game instructions to be sent to FPT. Worksheet II
19/10	Competitive positioning	To upload Worksheet I and II to virtual classroom.
20/10	Competitive positioning	Presentation of Worksheet I and II.
27/10	Business model canvas Lean market entry action plan	Worksheet III and IV.
30/10	Lean market entry action plan	To send Worksheet IV to FPT.
03/11	Product test and feedback to FPT	Worksheets V and VI.
10/11	Feedback to FPT	Send and receive feedback from partner team on product and Lean Market Entry Action Plan –Worksheet VI
29/11	Peer assessment	Peer assessment - Worksheet VII
14/12	Final presentation	Final presentation Global Board Game Project to lecturers and colleagues
21/12	Reflective summary	Submission of short personal reflection of the experiences of the GBGP - Worksheet VIII

A visual representation of the GBGP flow is detailed in Figure 1.

Figure 1. Global Board Game Project Process design



As well as developing an understanding of the student partner team's business contexts, the GBGP also highlighted cultural issues relevant to the educational contexts it spanned. This was most apparent in relation to managing and accounting for the costs of the board games that would be produced. In Scotland and Spain, where higher education is publicly funded, requiring students to cover additional costs to participate in the GBGP would have potentially resulted in low participation rates. This contrasted with the situation in the USA, where student contributions were deemed to have no adverse effect on student participation attitudes.

Responding to this, the delivery teams in Scotland and Spain sought, and received, additional financial support from their respective departments with a cap on the cost of game production and shipping of approximately 30 pounds. While this limited the game options and features available to students, it also ensured that game design required thorough consideration and encouraged close team-working to successfully calibrate the product offering for their partner team's market, while also discouraging 'overloading' the board game prototypes.

2.3.2. Incorporating feedback

The real-world simulation approach used in the project was conducive to a continual learning process. Hence, provision for feedback to students was embedded at three levels outlined in Table 2 below.

Table 2. Sources of Feedback

Feedback	Description	Challenges for Implementation
Educator-student	Students received regular feedback from educators through workshop sessions and via the Ideator.com platform "comments" feature in relation worksheets, formative feedback in relation to local assessment and formal, summative feedback through grading of local assessments.	Educators were required to plan schedules carefully to allow feedback to be incorporated in developing game ideas. Particularly, it required written formative and summative feedback to be scheduled to carefully in order to complement GBGP milestones.
Peer-to-Peer	Students offer feedback to each other's ideas and contributions developmentally in their local groups. Feedback is also encouraged between student groups (locally) and via the Ideator.com platform.	Encouraging students to undertake peer-to-peer feedback in a constructive fashion can be challenging. Incorporating the process into local assessments is one approach to encourage it.
Partner Team – Partner Team	Teams were encouraged to communicate regularly with their FPT culminating in a 'product testing' session of the physical board game produced. Feedback from this was sent to their FPT. Teams were required to submit formal feedback on their experience of working with their FPT.	In practice, stimulating meaningful foreign-partner team working was found to be challenging for some participant groups. Language, cultural, and time-zone barriers are required to be overcome. Some groups succeeded in overcoming these issues more successfully than others, however, the worksheets ensured a minimum level of feedback was generated.

2.3.3. Incorporating the process into assessments

Formal assessment was handled locally at each partner team institution. This allowed each institution to participate in the GBGP while also adhering to the assessment requirements mandated by each participating institution. A breakdown of the local assessments is offered in Table 3 below.

Table 3. Modes of Assessment

San Diego State University	Universitat Jaume I	Abertay University
Assigned tasks and worksheets (5%)		Presentation of board game idea and explanation of its appropriateness to the partner team market (40%).
Engagement (class exercises, communication with FPT) (10%)	Participation in presentation discussions (10%) in International Marketing course.	Presentation of board game idea and explanation of its appropriateness to the partner team market (40%).
Adherence to guidelines/timeliness (5%)	Presentation discussions (10%) in Business Creation course/ (20%) in International Marketing course.	
Resourcefulness and flexibility in meeting unexpected challenges (5%)		
FPT Assessment (10%)	FPT assessment in International Marketing course (50%) / FPT assessment (10%) in Business Creation course	
Peer evaluation (10%)	Peer assessment of group presentation (30%)	
Quality of the final report (50%)	Teacher assessment of worksheets (50%) in Business Creation course	
Personal reflection (5%)		

At both San Diego State University and Universitat Jaume I the assessment credited participation in the GBGP more strongly than at Abertay University. At Abertay University, the GBGP was overlaid against the local assessments which were related to the board game project, and there was no specific grade attached to engagement with FPTs

While an appeal of the GBGP for educators is its ability to be mapped against existing module requirements, the variation in grade allocations influenced what aspects of the project were prioritised by students. In some cases, the disconnect between FPT priorities may have influenced the quality of communication and interaction that took place. The methodology of the process is now evaluated.

2.4 Evaluating the Project

2.4.1. Student's feedback

The reflective essays submitted by students served to encourage self-reflection, but also offered an opportunity for the delivery team to gain a deeper insight into participant's experiences from a student perspective. Students were overall positive of the process, and identified several challenges related to working across borders that they identified, and overcame. Thus illustrating how the process required students to overcome numerous 'problems' throughout the project.

The student reflective essays again identified some issues relating to FPT team-working and communication issues, which had a more urgent impact on project partners where FPT team-working represented a graded element of the module.

Student FPT feedback was recorded via the project worksheets seven and eight which were set as aligned milestones for the project. The FPT feedback identified several positive, but also negative experiences of cross-border working. For example, several students on the GBGP explain how FPT working raised issues they had not previously considered:

> "The team gave constructive feedback on the features of the game, stating that some of the cards were misspelled however this could be more to the cultural difference of spelling certain words than them being spelled wrong". (Abertay Student)
>
> "We were unsure as to how our Foreign Partner team, or Scottish people in general, would react to the game. Based upon our research, it seemed as if individuals in this country viewed the outgoing trait as a positive. We were happy to hear the basis of our game would blend well within the UK, according to our Foreign Partner Team". (San Diego State University student)
>
> "Since we had a partner team in Spain with which we had to communicate to exchange products and feedback, we experienced what it's like to have a network that extends in an unknown market. Since it was not always easy to communicate effectively with them, it made me understand that it's fundamental to have a good relationship with your network and work towards understanding each other". (San Diego State University student)
>
> "My favorite part was working with the team in Spain in order to translate and conform to the partner country's culture. It really shows that you may think you know a culture just by researching online and implementing it into a project. But, in fact it takes people living in another country to help you integrate your project". (San Diego State University student)
>
> "I was really impressed with the depth of feedback and analysis that our foreign partner team provided our group with. They made some really good comments and suggestions on thing that we should change or add, so that we could ensure better success when we finally take our

> product to market. They ultimately gave us the insights and local knowledge we'd need to successfully take our game and sell it in Spain". (San Diego State University student)

However, this was contrasted by another participant's experience which identified issues around communication and interaction with the FPT:

> "I have seen little involvement on the part of the [group name] towards our project, because before sending the game to the United States, I sent the characteristics of our game and the phrases that make up our game to be able to send it in the best possible conditions both in translation and in model. The answer by them was very late, so we had to send the game as we had developed it without improving aspects that in this work are scored". (Universitat Jaume I student)

> "The communicative challenges we faced were caused by misunderstandings and poor communication that led to a general confusion between us and our partners. Eventually, one of the other team's members reached out to me privately and we tried to clarify the situation". (San Diego State University student)

> "Despite having a good work effort in our own team, we experienced quite a lot of problems with our foreign partners. We have yet not seen their product, and have therefore not been able to give them feedback. We have learnt that communication through time zones can be quite challenging and that personal interaction in many cases would be a better solution then email". (San Diego State University student)

The contact with students from other countries allowed the project participants to deepen their understanding of other cultures. Through the GBGP process, they came to understand that the most important aspect of the process was not the physical product they developed, but their understanding of the whole world behind it. Thus, the experience of working with people from abroad encouraged participants to adapt and enhance early ideas iteratively as knowledge of their partner team's culture improved.

Consequently, student's cultural understanding manifested through an articulation of rules, appropriate game themes, colour, punctuation, demonstrated awareness of specific market trends and challenges. Students at Universitat Jaume I positively assessed the project, who highlighted how it had allowed them to interact with people from other cultures but with the same goals, regardless of distance and differences. The project also contributed to deepening understanding of cultures and beliefs in other countries, as students reporting feeling better equipped to navigate these issues in the future and aware of the critical role of communication. For example, one student commented:

> "Working on GBGP helped me facing various issues never confronted before. Firstly, I learnt how to work on the launch of a new product and how to communicate with a wide team of students from all over the world. Hence, it gave me the chance to engage with different cultures, unknown for me before. Overall, this project helped me in realising that even simple board games vary from country to country as each one of them has a different identity and specific needs to take into account. I learnt that culture essentially influences a marketing research. Hence, to sell a product, it is fundamental to examine and anticipate the contextual needs and preferences of the specific consumers. (Universitat Jaume I student)

Furthermore, relating to the iterative, developmental nature of the methodology, a student highlighted:

> "I understood what was all right and which parts our marketing team had to modify and vice versa, our marketing team provided helpful feedback on the game of our Foreign Partner Team,

based on our experience in playing with their game, adopting the point of view of the game target market and considering their Lean Foreign Market Action Plan". (Universitat Jaume I student)

Feedback from students was overall positive of the methodology. At Abertay University, one student articulates how involvement in the project generated excitement in relation to the project:

> "From the moment I understood the content of the module, I couldn't wait to get started. I thought the idea of creating your own product, marketing it, and physically selling it, was very exciting. Through the process, myself and my team members experienced some tasks that went smoothly, but also some issues that we had to resolve, all made for a riveting few months". (Abertay University student)

Of particular note is this students' acknowledgement that the process did not run entirely as expected Unforeseen issues arose, which demanded their team to devise appropriate responses. This dynamic aspect of the process represents one of the advantages of simulation-based learning (Breckwoldt et al., 2014), and contributes to the engagement of students while developing problem-solving, team-working, and communication skills invaluable in the workplace (Andrews and Higson 2008).

Overall, students felt the GBGP was an effective learning tool providing them with valuable insights and enhanced understanding of the bringing product to a foreign market.

> "Participating in the Global Board Game Project was a unique experience I had not encountered and I can confidently say I enjoyed it!" (San Diego State University student)

> "Working on the GBGP with our foreign partner team really enhanced my understanding of the important of local partners when doing business internationally. [...]our FPT was a key resource to have in "testing" our assumptions. Their suggestions in regards to sales channels were key as well because we ended up pivoting in that segment of our business plan". (San Diego State University student)

2.4.2. Lessons learned

At the conclusion of the process, a debrief session was held by the GBGP delivery team in which the effectiveness of the methodology was considered. This was informed by information from several sources:

- Student coursework grades
- Student submitted reflective essays
- Student FPT feedback
- Formal student module feedback
- A debrief discussion between the delivery team

The spread of student grades fell within normal parameters for all partner teams, thus suggesting the GBGP was successful in developing student understanding in the various module focus areas and meeting the student learning outcomes set for the respective courses.

Reflecting on the implementation of the GBGP, the debrief session allowed the delivery team to identify action points derived from the module feedback, resulting in identification of the following areas:

- FPT communication/co-operation was not consistent across all pairings.
- Homogeneity of board game designs/themes.

In response to FPT communication problems, the delivery team agreed that allocating a percentage of the module-grade to FPT interaction would benefit the project for all participants. Furthermore, the student's use of the online communication platforms varied between teams. To stimulate their use (and subsequent FPT interaction), the delivery team plan on further emphasizing this aspect of the project, and making the use of such platforms mandatory.

Responding to the homogeneity of board game designs, several student teams produced card-based drinking/dare games, which demonstrated limited variety in the ways the games had been culturally calibrated. Through discussion in the debrief session, it was suggested that additional worksheets be generated which require student board game ideas to be more creative and problem-oriented and to address a greater variety of issues. For example, students would be encouraged to develop a board game that contributes to solving political, economic, social or cultural issues they identify in their FPT's local market.

Through these adjustments, it is hoped the GBGP can stimulate greater creativity and increased levels of cross-border student engagement and team working. Table 4 represents the extent to which the methodology developed fulfilled its aims and areas identified for attention in future iterations of the project.

Table 4. Aim Fulfilment and Action Points

GBGP Aims	Fulfilment	Action Points
Enhance social skills for managing actor networks	Evidenced by the feedback, however, there was variation among the students.	Harmonisation of assessment approaches to specifically credit such development.
Develop a methodology centred around the identification of real problem's in a real environment	Student feedback attested to the positive impact of the 'real world' aspect of the project	Re-run the project with new cohorts, and refined methodology.
Inspire students to use theoretical concepts in practice	Evidenced through student's written outputs.	Consider closer integration of module content across partners to stimulate more FPT, theoretical interaction.
Foster internationalisation, and encourage students to learn how to market a product in a foreign country	Evidenced through student feedback.	Continue to maintain the 'international' element in future iterations and grow the international footprint of the project.
Enable knowledge creation among students to solve problems	Evidenced through observation of the problems solved and the student feedback.	Stimulate this more through incorporating new, effective online communication platforms.

3. Conclusion

In this chapter, we reported on the development and implementation of an innovative a collaborative simulation project, *Global Board Game Project,* which was designed to leverage digital technology to

enhance entrepreneurial social skills in an international context. The cross-border initiative was driven by the desire to incorporate experiential component into courses with global entrepreneurship focus. Specifically, the GBGP was intended to follow the demand- and competence-model pedagogical approach (Nabi *et al.*, 2017) with several objectives. These included enhancement of students' social entrepreneurial skills through interaction with a 'real' environment and engaging - via digital technology - in cross-border communication to market a product in a foreign market.

While not without challenges, the project was generally successful in meeting the objectives based on the student feedback as well as the formal assessment of the student learning outcomes. In particular, students appreciated the opportunity to develop a product concept and receive feedback from their counterparts in another university in another country. The experience of creating a 'real' prototype and interacting with students challenged the students cognitively and demanded they recognize and respond to the challenges of bringing a product into a foreign market in an action-driven process. In that sense, the simulation, as a pedagogical tool, allowed the students to grasp international entrepreneurship concepts in a way that included multiple perspectives, is more imaginative, emotional and people-oriented (Morris, Kuratko and Cornwall, 2013). The use of digital technologies - in particular, the *Ideator.com* and the *Boardgamesmaker.com* platforms - proved to be helpful in making the simulation feasible despite the dispersion of actors across different countries.

From the perspective of the delivery team, the initial findings regarding the GBGP point to areas that can be modified and, ultimately, improved. It is hoped that the project can serve as an inspiration for entrepreneurship educators from around the world to further enhance the quality of educational programs and enrich the discussion on the theory and practice of innovative enterprise education.

References

Baron, R. A. and Markman, G. D. (2003) 'Beyond social capital: the role of entrepreneurs' social competence in their financial success', *Journal of Business Venturing*, 18(1), pp. 41–60. doi: 10.1016/S0883-9026(00)00069-0.

Bechard, J. P. and Gregoire, D. (2005) 'Entrepreneurship Education Research Revisited: The Case of Higher Education.', *Academy of Management Learning & Education*, 4(1), pp. 22–43. doi: 10.5465/AMLE.2005.16132536.

Boukamcha, F. (2015) 'Impact of training on entrepreneurial intention: an interactive cognitive perspective', *European Business Review*, 27(6), pp. 593–616. doi: 10.1108/EBR-12-2014-0090.

Breckwoldt, J., Gruber, H. and Wittmann, A. (2014) 'Simulation Learning', in. Springer, Dordrecht, pp. 673–698. doi: 10.1007/978-94-017-8902-8_25.

Chang, J. and Rieple, A. (2013) 'Assessing students' entrepreneurial skills development in live projects', *Journal of Small Business and Enterprise Development*, 20(1), pp. 225–241. doi: 10.1108/14626001311298501.

Coleman, S., Perry, J. and Schwen, T. (1997) 'Constructivist instructional development: Reflecting on practice from an alternative paradigm', in Dills, C. and Romiszowski, A. (eds) *Instructional development paradigms*. Educational Technology, p. 269/282.

Fayolle, A. (2013) 'Personal views on the future of entrepreneurship education', *Entrepreneurship & Regional Development*, 25(7–8), pp. 692–701. doi: 10.1080/08985626.2013.821318.

Fayolle, A. and Gailly, B. (2015) 'The Impact of Entrepreneurship Education on Entrepreneurial Attitudes and Intention: Hysteresis and Persistence', *Journal of Small Business Management*, 53(1), pp. 75–93. doi: 10.1111/jsbm.12065.

Fayolle, A., Gailly, B. and Lassas-Clerc, N. (2006) 'Assessing the impact of entrepreneurship education programmes: a new methodology', *Journal of European Industrial Training*, 30(9), pp. 701–720. doi: 10.1108/03090590610715022.

Gedajlovic, E., Honig, B., Moore, C. B., Payne, G. T. and Wright, M. (2013) 'Social Capital and Entrepreneurship: A Schema and Research Agenda', *Entrepreneurship Theory and Practice*, 37(3), pp. 455–478. doi: 10.1111/etap.12042.

Gibb, A. (2008) 'Entrepreneurship and Enterprise Education in Schools and Colleges : Insights from UK Practice', *International Journal of Entrepreneurship Education*, 6(2), p. 48.

Gibb, A. (2011) 'Concepts into practice: meeting the challenge of development of entrepreneurship educators around an innovative paradigm', *International Journal of Entrepreneurial Behavior & Research*. Edited by E. Ramsey, 17(2), pp. 146–165. doi: 10.1108/13552551111114914.

Gilbert, D. H. (2012) 'From chalk and talk to walking the walk', *Education + Training*. Emerald Group Publishing Limited, 54(2/3), pp. 152–166. doi: 10.1108/00400911211210260.

Greene, F. J. and Saridakis, G. (2008) 'The role of higher education skills and support in graduate self-employment', *Studies in Higher Education*, 33(6), pp. 653–672. doi: 10.1080/03075070802457082.

Jonassen, D., Peck, K. and Wilson, B. (1999) *Learning with Technology: A Constructivist Perspective*, *ILT Faculty Bookshelf*.

Kirkwood, J., Dwyer, K. and Gray, B. (2014) 'Students' reflections on the value of an entrepreneurship education', *The International Journal of Management Education*, 12(3), pp. 307–316. doi: 10.1016/J.IJME.2014.07.005.

Kolb, D. A. (1984) *Experiential learning as the science of learning and development*. Englewood Cliffs, NJ: Prentice Hall.

Krueger, N. F., Reilly, M. D. and Carsrud, A. L. (2000) 'Competing models of entrepreneurial intentions', *Journal of Business Venturing*, 15(5–6), pp. 411–432. doi: 10.1016/S0883-9026(98)00033-0.

Kuratko, D. F. (2005) 'The Emergence of Entrepreneurship Education: Development, Trends, and Challenges', *Entrepreneurship Theory and Practice*, 29(5), pp. 577–598. doi: 10.1111/j.1540-6520.2005.00099.x.

Liñán, F. and Chen, Y.-W. (2009) 'Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions', *Entrepreneurship Theory and Practice*, 33(3), pp. 593–617. doi: 10.1111/j.1540-6520.2009.00318.x.

McGoldrick, K. and Ziegert, A. L. (2011) *Let Experience be the Guide: Experiential Education in Economics*. Edward Elgar Publishing.

McLoughlin, C. and Lee, M. J. W. (2010) 'Personalised and self regulated learning in the Web 2.0 era: International exemplars of innovative pedagogy using social software', *Australasian Journal of Educational Technology*, 26(1). doi: 10.14742/ajet.1100.

Morris, M. H., Kuratko, D. F. and Cornwall, J. R. (2013) *Entrepreneurship programs and the modern university*. Edward Elgar Publishing.

Mughal, F. and Zafar, A. (2011) 'Experiential Learning from a Constructivist Perspective: Reconceptualizing the Kolbian Cycle', *International Journal of Learning and Development*, 1(2), pp. 27–37. doi: 10.5296/ijld.v1i2.1179.

Nabi, G., Liñán, F., Fayolle, A., Krueger, N. and Walmsley, A. (2017) 'The Impact of Entrepreneurship Education in Higher Education: A Systematic Review and Research Agenda', *Academy of Management Learning & Education*, 16(2), pp. 277–299. doi: 10.5465/amle.2015.0026.

Onyema, O. G. and Daniil, P. (2017) 'Educating the 21st century learners: are educators using appropriate learning models for honoring skills in the mobile age?', *Journal of Entrepreneurship Education*, 20(2), pp. 1–15.

Penaluna, K., Penaluna, A. and Jones, C. (2012) 'The Context of Enterprise Education: Insights into Current Practices', *Industry and Higher Education*, 26(3), pp. 163–175. doi: 10.5367/ihe.2012.0098.

Pittaway, L. A., Gazzard, J., Shore, A. and Williamson, T. (2015) 'Student clubs: experiences in entrepreneurial learning', *Entrepreneurship & Regional Development*, 27(3–4), pp. 127–153. doi: 10.1080/08985626.2015.1014865.

Pittaway, L. and Cope, J. (2007) 'Simulating Entrepreneurial Learning: Integrating Experiential and Collaborative Approaches to Learning', *Management Learning*, 38(2), pp. 211–233. doi: 10.1177/1350507607075776.

Pittaway, L., Rodriguez-Falcon, E., Aiyegbayo, O. and King, A. (2011) 'The role of entrepreneurship clubs and societies in entrepreneurial learning', *International Small Business Journal*, 29(1), pp. 37–57. doi: 10.1177/0266242610369876.

Rauch, A. and Hulsink, W. (2015) 'Putting Entrepreneurship Education Where the Intention to Act Lies: An Investigation Into the Impact of Entrepreneurship Education on Entrepreneurial Behavior', *Academy of Management Learning & Education*, 14(2), pp. 187–204. doi: 10.5465/amle.2012.0293.

Sadik, A. (2008) 'Digital storytelling: a meaningful technology-integrated approach for engaged student learning', *Educational Technology Research and Development*. Springer US, 56(4), pp. 487–

506. doi: 10.1007/s11423-008-9091-8.

Sánchez, J. C. (2011) 'University training for entrepreneurial competencies: Its impact on intention of venture creation', *International Entrepreneurship and Management Journal*, 7(2), pp. 239–254. doi: 10.1007/s11365-010-0156-x.

Shane, S. and Venkataraman, S. (2000) 'The promise of entrepreneurship as a field of research', *Academy of Management Review*, 25(1), pp. 217–226. doi: 10.5465/AMR.2000.2791611.

Souitaris, V., Zerbinati, S. and Al-Laham, A. (2007) 'Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources', *Journal of Business Venturing*, 22(4), pp. 566–591. doi: 10.1016/J.JBUSVENT.2006.05.002.

Vincett, P. S. and Farlow, S. (2008) '"Start-a-Business": an experiment in education through entrepreneurship', *Journal of Small Business and Enterprise Development*. Edited by G. Solomon. Emerald Group Publishing Limited, 15(2), pp. 274–288. doi: 10.1108/14626000810871673.

Wurdinger, S. D. (2005) *Using experiential learning in the classroom : practical ideas for all educators*. Oxford, UK: R&L Education.